I. REJECTION OF CLAIMS 1, 9-10, 12 and 15-16 UNDER 35 U.S.C. § 102

The Examiner has rejected claims 1, 9-10, 12 and 15-16 in Paragraph 4 of the Office Action as being unpatentable by the Norrell et al. patent (United States patent 5,793,821 issued August 11, 1998). The rejection is respectfully traversed.

As was discussed at the Examiner's interview, Norrell et al. (hereinafter Norrell) teaches an equalized envelope derived timing system that compensates for a differential time delay that occurs between upper and lower bandedges of a received signal (See Norrell, Abstract and Figure 5). Specifically, Norrell compensates for differential delay distortion at the upper and lower bandedges by adjusting the bandedge filters themselves. (See Norrell, column 7, lines 65-67).

The Examiners tentatively agreed that Norrell's teaching of adapting the bandedge filters to compensate for the bandedge signal distortion was different from the Applicant's use of a "pre-equalizer" to accomplish bandedge amplitude adjustment. The Examiner had argued in the office action that a combination of the delay line 506 and Timing Interpolation Filter 504 of Norrell is considered a pre-equalizer that performs the same function as the applicant's pre-equalizer. However, the delay line 506 merely stores a length of signal that permits the bandedge filters to extract particular signal samples and the Timing Interpolation Filter 504 is used to convert a 3 samples per symbol signal into a 2 samples per symbol signal. The Examiner agreed that the combination did not operate to specifically adjust the upper and lower bandedge signals.

As such, the Examiner tentatively agreed that Norrell fails to teach or suggest a pre-equalizer for adjusting the amplitudes of the bandedges of a broadband signal in response to a control signal.

Therefore, the Applicant respectfully submits that claim 1 is not anticipated by the teachings of Norrell and, as such, fully satisfies the requirements of 35 U.S.C. § 102 and is patentable thereunder.

As claim 12 recites similar limitations to those of claim 1, the foregoing response also applies to claim 12. Therefore, the Applicant submits that claims 1 and 12, as they now stand, fully satisfy the requirements of 35 U.S.C. § 102 and are patentable thereunder.

Furthermore, dependent claims 9-10 and 15-16 depend, either directly or indirectly, from respective claims 1 and 12 and recite additional features therefor. As such and for the exact same reasons set forth above, the Applicant submits that none of these claims is anticipated with respect to the teachings of Norrell. Therefore, the Applicant submits that all these dependent claims also fully satisfy the requirements of 35 U.S.C. § 102 and are patentable thereunder.

II. REJECTION OF CLAIMS 1, 9-10, 12 and 15-16 UNDER 35 U.S.C. § 103

The Examiner has rejected claims 1, 9-10, 12 and 15-16 in Paragraph 2 of the Office Action as being unpatentable over the Gitlin et al. patent (United States patent 4,253,184 issued February 24, 1981). The rejection is respectfully traversed.

As was discussed with the Examiners, Gitlin teaches a phase compensation arrangement that operates on a signal before the symbol equalizer in a quadrature amplitude modulated (QAM) receiver. Specifically, Gitlin compensates for phase-jitter in a signal that is caused by transmission through a power-line. This phase-jitter or phase perturbance is limited to the power line frequency and associated low-order harmonic frequencies (See Gitlin, column 3, lines 57-63). As such, Gitlin adjusts the components at the harmonically related sinusoids associated with phase-jitter caused by power-line transmission.

During the interview, the Examiners agreed that Gitlin fails to teach or suggest the adjusting of the bandedges of a broadband signal. Additionally, it was agreed that Gitlin fails to teach or suggest a bandedge filter, connected to said pre-equalizer, for extracting a bandedge signal from said broadband signal, or a bandedge signal processor, connected to said bandedge filter, for generating said control signal in response to said bandedge signal.

Although the Examiners indicated during the interview that the Applicants claims are allowable over Gitlin, they would review Gitlin in view of the interview before making a final decision on the patentability of Applicant's claims. Therefore, in view of the interview, the Applicant respectfully submits that claim 1, as it now stands, fully satisfies the requirements of 35 U.S.C. § 103 and is patentable thereunder

As claim 12 recites similar limitations to those of claim 1, the foregoing response also applies to claim 12. Therefore, the Applicant submits that claims 1 and 12, as they now stand, fully satisfy the requirements of 35 U.S.C. § 103 and are patentable thereunder.

Furthermore, dependent claims 9-10 and 15-16 depend, either directly or indirectly, from respective claims 1 and 12 and recite additional features therefor. As such and for the exact same reasons set forth above, the Applicant submits that none of these claims is obvious with respect to the teachings of Gitlin. Therefore, the Applicant submits that all these dependent claims also fully satisfy the requirements of 35 U.S.C. § 103 and are patentable thereunder.

III. ALLOWANCE OF CLAIM 11

The Applicant thanks the Examiner for allowing claim 11.

IV. CLAIMS 2-8, 13 AND 14-20 HAVING ALLOWABLE SUBJECT MATTER

The Applicant thanks the Examiner for identifying claims 2-8, 13 and 14 as containing allowable subject matter. Although the Examiner has suggested amending the claims in independent form including all the limitations of the base claim and any intervening claims, the Applicant does not view such an amendment as necessary in view of the Examiner's view of the prior art during the Examiner's interview .

Conclusion

Thus, the Applicant submits that none of the claims, presently in the application, is anticipated under the provisions of 35 U.S.C. § 102 or obvious under the provisions of 35 U.S.C. § 103. Consequently, the Applicant believes that all these claims are presently in condition for allowance. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

If, however, the Examiner believes that there are any unresolved issues requiring adverse final action in any of the claims now pending in the

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application, it is requested that the Examiner telephone Mr. Raymond R. Moser Jr., Esq. at (732) 530-9404 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

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Respectfully submitted,

9-7-00

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CERTIFICATE OF MAILING under 37 C.F.R. § 1.8(a)

I hereby certify that this correspondence is being deposited on Sept. 7 2000 with the United States Postal Service as first class mail, with sufficient postage, in an envelope addressed to the Assistant Commissioner of Patents, Washington, D.C. 20231.

Signature

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Date of signature